

Abstract of the Disclosure

Methods for making human ES cells and human differentiated cells and tissues for transplantation are described, whereby the cells and tissues are created following somatic cell nuclear transfer. The nuclear transfer donor is genetically modified prior to nuclear transfer such that cells of at least one developmental lineage are de-differentiated, i.e., unable to develop, thereby resolving the ethical dilemmas involved in reprogramming somatic cells back to the embryonic stage. The method concomitantly directs differentiation such that the desired cells and tissues may be more readily isolated.